

PERMIT NO. HI 0110078

**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. §1251 et seq.; the "Act"); Hawaii Revised Statutes (HRS), Chapter 342D; and Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55, Department of Health (DOH), State of Hawaii,

**UNITED STATES MARINE CORPS  
MARINE CORPS BASE HAWAII**

(hereinafter PERMITTEE),

is authorized to discharge treated wastewater to the receiving waters named Pacific Ocean through Outfall Serial No. 001 at Latitude 21°27'32"N and Longitude 157°42'56"W,

from its Kaneohe Bay Water Reclamation Facility located at Building 0829, Marine Corps Base Hawaii, Kaneohe Bay, Hawaii 96863

in accordance with the effluent limitations, monitoring requirements and other conditions set forth herein, and in the DOH "Standard NPDES Permit Conditions," that is available on the DOH, Clean Water Branch (CWB) website at: <http://health.hawaii.gov/cwb/site-map/home/standard-npdes-permit-conditions/>.

All references to Title 40 of the Code of Federal Regulations (CFR) are to regulations that are in effect on July 1, 2018, except as otherwise specified. Unless otherwise specified herein, all terms are defined as provided in the applicable regulations in Title 40 of the CFR.

This permit, including the Zone of Mixing, will become effective on **February 1, 2020.**

This permit, including the Zone of Mixing, and the authorization to discharge will expire at midnight, **January 30, 2024.**

Signed this 9<sup>th</sup> day of December, 2019.



---

(For) Director of Health

**FINAL PERMIT  
December 9, 2019**

**TABLE OF CONTENTS**

PART A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PART B. WHOLE-EFFLUENT TOXICITY REQUIREMENTS

PART C. SPECIFIC WATER QUALITY CRITERIA FOR RECREATIONAL WATERS

PART D. ZONE OF MIXING LIMITATIONS

PART E. RECEIVING WATER MONITORING PROGRAM REQUIREMENTS

PART F. WASTEWATER POLLUTION PREVENTION PROGRAM

PART G. PRETREATMENT REQUIREMENTS

PART H. SLUDGE/BIOSOLIDS REQUIREMENTS

PART I. REPORTING REQUIREMENTS

PART J. SPECIAL CONDITIONS

PART K. LOCATION MAP, AND ZOM AND RECEIVING WATER LOCATION MAP

APPENDIX 1. MONITORING METHODS

STANDARD NPDES PERMIT CONDITIONS (Version 15)

**PART A**  
**PERMIT NO. HI 0110078**  
**Page 3**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. Outfall Serial No. 001

- a. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge treated wastewater from Outfall Serial No. 001. The discharge shall be limited and monitored as specified below.

Effluent Characteristics	Discharge Limitations <sup>1</sup>				Monitoring Requirements	
	Average Monthly	Average Weekly	Maximum Daily	Units	Measurement Frequency	Sample Type
Flow	2	2	2	MGD	Continuous/ Estimate <sup>3</sup>	--
Biochemical Oxygen Demand (BOD) (5-day @ 20 Deg. C)	30	45	2	mg/L	1/Week <sup>4</sup>	24-Hour Composite
	500	751	2	lbs/day		
	The average monthly percent removal shall not be less than 85 percent					
Total Suspended Solids (TSS)	30	45	2	mg/L	1/Week <sup>4</sup>	24-Hour Composite
	500	751	2	lbs/day		
	The average monthly percent removal shall not be less than 85 percent					

MGD – Million Gallons per Day

<sup>1</sup> Compliance with mass-based effluent limitations shall be determined using the following formula:

$$\text{lbs/day} = 8.34 * \text{concentration (mg/L)} * \text{flow (MGD)}, \text{ where design flow} = 2.0 \text{ MGD}$$

<sup>2</sup> The Permittee shall monitor and report the parameter analytical results.

<sup>3</sup> Both influent and effluent flows shall be measured, as specified in Part A.1.b of this Permit

<sup>4</sup> Both influent and effluent samples shall be taken, as specified in Parts A.1.b and A.1.c of this permit.

Effluent Characteristics	Discharge Limitations <sup>1</sup>				Monitoring Requirements	
	Annual Geometric Mean	Average Monthly	Maximum Daily	Units	Measurement Frequency	Sample Type
pH	Not less than 6.0 and not greater than 9.0			standard units	1/Week	Grab
Enterococci	--	25,655 <sup>4</sup>	57,850 <sup>5</sup>	CFU/100 mL	5/Month <sup>6</sup>	Grab <sup>7</sup>
Chronic Toxicity <i>Tripneustes Gratilla</i>	--	--	Pass <sup>8</sup>	--	1/Month	24-Hour Composite
Remaining Pollutants	--	--	<sup>9</sup>	µg/l	1/Year	Grab

<sup>1</sup> Compliance with mass-based effluent limitations shall be determined using the following formula:  $\text{lbs/day} = 8.34 * \text{concentration (mg/L)} * \text{flow (MGD)}$ , where design flow = 2.0 MGD

<sup>2</sup> The Permittee shall monitor and report the parameter analytical results.

<sup>3</sup> Both influent and effluent samples shall be taken, as specified in Part A.1.b and A.1.c of this permit.

**PART A**  
**PERMIT NO. HI 0110078**  
**Page 4**

- <sup>4</sup> Compliance based on the monthly geometric mean.
  - <sup>5</sup> Compliance based on the single sample maximum.
  - <sup>6</sup> Report enterococci as a geometric mean and as a single sample.
  - <sup>7</sup> Enterococci samples shall be analyzed using Method 1600, *Membrane Filter Test Method for Enterococci in Water* (EPA 821-R-09-016, December 2009).
  - <sup>8</sup> "Pass," as described in Section B.3 of this Permit.
  - <sup>9</sup> The Permittee shall perform annual monitoring on all remaining pollutants listed in Appendix 1 of this permit, except those already specified in the table above. The use of grab samples may be used, although 24-hour composite samples may be used if indicated in Appendix 1.
- b. For individual discharge parameters monitored in the influent and effluent, monitoring shall be conducted on the same day.
- c. All influent and effluent monitoring shall be arranged so that each day of the business week is represented once per month [i.e., for discharge parameters monitoring five (5) days per week or three (3) days per week], or once per two (2) months (i.e., for discharge parameters monitored once per week).
- d. Samples taken in compliance with the monitoring requirements in Part A.1 of this permit shall be taken at the following locations:
- (1) Influent Monitoring, Monitoring Location INF: All influent samples shall be taken downstream of any additions to the trunk sewer, upstream of any in-plant return flows, and prior to treatment where representative samples of the influent can be obtained.
  - (2) Effluent Monitoring Location, Outfall Serial No. 001: All effluent samples shall be taken downstream from any additions to the facility after all treatment processes, and prior to mixing with effluent from the Kailua Regional Wastewater Treatment Plant and the receiving waters, where representative samples of the final effluent can be obtained.
- e. Test procedures for the analysis of pollutants shall conform with regulations published pursuant to Section 304(h) of the Act.
- f. Unless otherwise noted in this permit, all pollutant parameters shall be determined according to methods prescribed in 40 CFR Part 136, promulgated pursuant to Section 304(h) of the Act. Applications for the use of alternative test methods shall be submitted according to 40 CFR Part 136.4.

- g. The Permittee shall use test methods with detection limits that reflect the applicable numerical limitations as specified in Chapter 11-54 and must be sufficiently sensitive as defined at 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv). For situations where the discharge limitation is below the detection limits of the available test methods, the test method which has the detection limit closest to the discharge limitation shall be used.
- h. "Grab sample" means an individual sample collected at a randomly-selected time over a period not exceeding 15 minutes.
- i. "Composite sample" means a combination of at least eight (8) sample aliquots, collected at periodic intervals during the operating hours of the facility over a 24-hour period. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

**2. Effluent and Receiving Water Monitoring Programs**

**a. Effluent Monitoring Program**

Within 30 calendar days after the effective date of this permit, the Permittee shall submit an updated/revised Effluent Monitoring Program which complies with Part A of this permit to the DOH for approval.

- b. The program shall include at a minimum, but not be limited to the following:
  - (1) Sampling location map;
  - (2) Sample holding time;
  - (3) Preservation techniques;
  - (4) Test method and method detection level; and
  - (5) Quality control measures.
- c. The DOH reserves the right to require the Permittee to revise the approved program, as appropriate, pursuant toward compliance with the terms and conditions of this permit.

## B. WHOLE-EFFLUENT TOXICITY REQUIREMENTS

### 1. Monitoring Frequency

The Permittee shall conduct chronic toxicity tests on flow weighted 24-hour composite effluent samples in accordance with the procedures and test species described below. The Permittee shall report each month's result on the Discharge Monitoring Report (DMR) for that month.

For whole effluent toxicity tests using *Tripneustes gratilla*, if the Permittee has unacceptable control performance while conducting the sea urchin sperm/fertilization bioassay during a monitoring period, the Permittee shall document its efforts, communicate all attempts to the DOH, and report all attempts on the DMR for that monitoring period.

### 2. Test Species and Methods

The Permittee shall conduct chronic toxicity testing on *Tripneustes gratilla*, using the test methods described below. The Permittee shall follow Quality Assurance procedures as described in the test methods manual *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136,1995).

Test Species	Test Method
<i>Tripneustes gratilla</i>	Hawaiian Collector Urchin, <i>Tripneustes gratilla</i> (Hawa'e) Fertilization Test Method (Adapted by Amy Wagner, EPA Region 9 Laboratory, Richmond, CA from a method developed by George Morrison, EPA, ORD Narragansett, RI and Diane Nacci, Science Applications International Corporation, ORD Narragansett, RI) (EPA/600/R-12/022).

### 3. Chronic WET Permit Limit

All State waters shall be free from chronic toxicity as measured using the toxicity tests listed in HAR, Section 11-54-10, or other methods specified by the DOH. For this discharge, the determination of "Pass" or "Fail" from any one WET chronic toxicity test at the applicable in-stream waste concentration (IWC) using the Test of Significant Toxicity (TST) approach is described in National Pollutant Discharge Elimination System (NPDES) Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010). For any one chronic

toxicity test, the chronic WET permit limit that must be met is rejection of the null hypothesis ( $H_0$ ):

$$\text{IWC (percent effluent) mean response} \leq 0.75 \times \text{Control mean response}$$

For Outfall Serial No. 001, an IWC of 0.22% shall be used.

A test result that rejects this null hypothesis is reported as “Pass” on the DMR form. A test result that does not reject this null hypothesis is reported as “Fail” on the DMR form. To calculate either “Pass” or “Fail,” the Permittee shall follow the instructions in NPDES Test of Significant Toxicity Implementation Document, Appendix A. If a test result is reported as “Fail,” then the Permittee shall follow Part B.6 (Accelerated Toxicity Testing and TRE/TIE Process) of this permit.

#### 4. Quality Assurance

- a. Quality assurance measures, instructions, and other recommendations and requirements are found in the chronic test methods manual previously referenced. Additional requirements are specified below.
- b. This discharge is subject to a determination of “Pass” or “Fail” from a single-effluent concentration chronic toxicity test at the IWC (for statistical flowchart and procedures, see NPDES Test of Significant Toxicity Implementation Document, Appendix A, Figure A-1). During Step 6 of Appendix A, the Permittee shall use an alpha value of 0.05 for *T. gratilla*. The chronic IWC for Outfall Serial No. 001 is 0.22 percent effluent.
- c. Effluent dilution water and control water shall be receiving water or laboratory water, as described in the test methods manual Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995). If the dilution water is different from test organism culture water, then a second control using culture water shall also be used.
- d. If organisms are not cultured in-house, then concurrent testing with a reference toxicant shall be conducted. If organisms are cultured in-house, then monthly reference toxicant testing is sufficient. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).
- e. All multi-concentration reference toxicant test results must be reviewed and reported according to EPA guidance on the evaluation of concentration-response relationships found in Method Guidance

and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR 136) (EPA/821/B-00/004, 2000).

- f. If either the reference toxicant or effluent toxicity tests do not meet all test acceptability criteria in the test methods manual, then the Permittee shall re-sample and re-test within 14 calendar days.
- g. If the discharged effluent is chlorinated, then chlorine shall not be removed from the effluent sample prior to toxicity testing without written approval by the DOH.

5. Initial Investigation TRE Work Plan

Within 90 calendar days of the permit effective date, the Permittee shall prepare and submit to the DOH a copy of its Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan (1-2 pages) for review. This plan shall include steps the Permittee intends to follow if toxicity is measured above the chronic WET permit limit and shall include the following, at minimum:

- a. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;
- b. A description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility;
- c. An indication of who would conduct the TIEs if a Toxicity Identification Evaluation (TIE) is necessary (i.e., an in-house expert or outside contractor); and
- d. A flow chart of the workplan steps.

6. Accelerated Toxicity Testing and TRE/TIE Process

- a. If the chronic WET permit limitation is exceeded and the source of toxicity is known (e.g., a temporary plant upset), then the Permittee shall conduct one additional toxicity test using the same species and test method. This toxicity test shall begin within 14 calendar days of receipt of a test result exceeding the chronic WET permit limit. If the additional toxicity test does not exceed the chronic WET permit limitation, then the Permittee may return to the regular testing frequency.

- b. If the chronic WET permit limit is exceeded and the source of toxicity is not known, then the Permittee shall conduct six additional toxicity tests using the same species and test method, approximately every two weeks, over a 12-week period. This testing shall begin within 14 calendar days of receipt of a test result exceeding the chronic WET permit limit. If none of the additional toxicity tests exceed the chronic WET permit limit, then the Permittee may return to the regular testing frequency.
- c. If one of the additional toxicity tests (in paragraphs Part B.6.a or B.6.b) exceeds the chronic WET permit limitation, then, within 14 calendar days of receipt of this test result, the Permittee shall initiate a TRE using, according to the type of treatment facility, EPA manual Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants (EPA/833/B-99/002, 1999) or EPA manual Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070, 1989). In conjunction, the Permittee shall develop and implement a Detailed TRE Work Plan which shall include the following: further actions undertaken by the Permittee to investigate, identify, and correct the causes of toxicity; actions the Permittee will take to mitigate the effects of the discharge and prevent the recurrence of toxicity; and a schedule for these actions. The Permittee may discontinue accelerated toxicity testing upon the written approval from the DOH.
- d. The Permittee may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, EPA manuals: Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures (EPA/600/6-91/003, 1991); Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/080, 1993); Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/081, 1993); and Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document (EPA/600/R-96-054, 1996). Further, the Permittee may be required by the DOH to initiate a TIE as part of a TRE.
- e. Prior to conducting a TIE, the Permittee shall submit a TIE plan to the DOH. The TIE plan, at a minimum shall:
  - (1) Discuss previous TIE efforts and other available data useful in developing TIE procedures;
  - (2) Evaluate available operations and effluent data;

- (3) Identify and discuss site-specific considerations for the TIE effort;
- (4) Include a comprehensive quality control program;
- (5) Establish a monitoring program;
- (6) Identify test methods and statistical methods to be used for the TIE effort;
- (7) Identify the TIE procedures for the baseline toxicity tests and TIE manipulations;
- (8) Discuss additional potential analysis that might be helpful in evaluating the causative toxicant(s) or appropriate treatability, such as pollutant scans for toxic effluent;
- (9) Discuss the personnel and their qualifications for the team conducting the TIE results interpretation; and
- (10) Include follow-up procedures for use if the TIE is inconclusive.

The Permittee shall incorporate all comments received from the DOH within 14 days of the TIE plan submittal. Within 14 days of the TIE plan submittal, the Permittee shall commence with the TIE.

#### **7. Reporting of Chronic Toxicity Monitoring Results**

- a. The Permittee shall report on the DMR for the month in which the toxicity test was conducted: "Pass" or "Fail" (based on the Welch's t-test result), the calculated "percent mean response at IWC," where:

$$\text{Percent Mean Response at IWC} = ((\text{Control Mean Response} - \text{IWC Mean Response}) \div \text{Control Mean Response}) \times 100$$

and to assist in evaluation of the test result, the standard deviations for the IWC mean response and the control mean response.

- b. The Permittee shall submit a full laboratory report for all toxicity testing as an attachment to the DMR for the month in which the toxicity test was conducted. The laboratory report shall contain: the toxicity test results; the dates of sample collection and initiation of each toxicity test; all results for effluent parameters monitored concurrently with the toxicity test(s); and progress reports on TRE/TIE investigations.

- c. The Permittee shall notify the DOH in writing within five (5) business days of exceedance of the chronic WET permit limitation. This notification shall describe actions the permittee has taken or will take to investigate, identify, and correct the causes of toxicity; the status of actions required by this permit; and schedule for actions not yet completed; or reason(s) that no action has been taken.

**8. Permit Reopener for Chronic Toxicity**

In accordance with 40 CFR Parts 122 and 124, this permit may be modified to include new effluent limitations or permit conditions to address chronic toxicity in the effluent or receiving waterbody, as a result of the discharge; or to implement new, revised, or newly interpreted water quality standards applicable to chronic toxicity.

**C. WATER QUALITY CRITERIA**

1. Specific Water Quality Criteria for Recreational Waters

- a. The discharge of treated wastewater through Outfall Serial No. 001 shall not cause the following water quality criteria to be violated in marine recreational water:
  - (1) Enterococcus content shall not exceed a geometric mean of 35 colony forming units per 100 milliliters over any 30-day interval;
  - (2) A Statistical Threshold Value (STV) of 130 per 100 milliliters shall be used for enterococcus. The STV shall not be exceeded by more than ten percent of samples taken within the same 30-day interval in which the geometric mean is calculated;
  - (3) State waters in which enterococcus content does not exceed the standard shall not be lowered in quality; and
  - (4) Raw or inadequately treated sewage, sewage for which the degree of treatment is unknown, or other pollutants of public health significance, as determined by the DOH, shall not be present in natural public swimming, bathing, or wading areas. Warning signs shall be posted where human sewage has been identified as temporarily contributing to the enterococcus count.
- b. Compliance with the water quality criteria listed in Part C.1.a, above, shall be measured using data from the seven shoreline monitoring stations submitted to the DOH by Kailua Regional Wastewater Treatment Plant.

2. Basic Water Quality Criteria Applicable to All Waters:

- a. The discharge shall comply with applicable water quality standards for receiving waters adopted by the DOH under HAR, Chapter 11-54, Water Quality Standards, effective November 15, 2014.
- b. The discharge shall not interfere with the attainment or maintenance of that water quality which assures protection of public water supplies and the protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife and allows recreational activities in and on the water.
- c. The discharge of treated wastewater through Outfall Serial No. 001 shall not cause the following water quality criteria to be violated:

- (1) All State waters shall be free from pollutants in concentrations which exceed the acute standards listed in HAR 11-54-4(b)(3). All State waters shall also be free from acute toxicity as measured using the toxicity tests listed in HAR 11-54-11, or other methods specified by the DOH.
- (2) All State waters shall be free from pollutants in concentrations which on average during any 24-hour period exceed the chronic standards listed in HAR 11-54(b)(3). All State waters shall also be free from chronic toxicity as measured using the toxicity tests listed in HAR 11-54-10, or other methods specified by the DOH.
- (3) All State waters shall be free from pollutants in concentrations which, on average during any 30-day period, exceed the "fish consumption" standards for non-carcinogens in HAR 11-54-4(b)(3). All State waters shall also be free from pollutants in concentrations, which on average during any 12-month period, exceed the "fish consumption" standards for pollutants identified as carcinogens in HAR 11-54-4-(b)(3).
- (4) All waters shall be free of substances attributable to domestic, industrial, or other controllable sources of pollutants, include:
  - (a) Material that will settle to form objectionable sludge or bottom deposits;
  - (b) Floating debris, oil, grease, scum, or other floating materials;
  - (c) Substances in amounts sufficient to produce taste in the water or detectable off-flavor in the flesh of fish, or in amounts sufficient to produce objectionable color, turbidity or other conditions in the receiving waters;
  - (d) High or low temperatures; biocides; pathogenic organisms; toxic, radioactive, corrosive, or other deleterious substances at levels or in combinations sufficient to be toxic or harmful to human, animal, plant, or aquatic life, or in amounts sufficient to interfere with any beneficial use of the water;
  - (e) Substances or conditions or combinations thereof in concentrations which produce undesirable aquatic life; and

- (f) Soil particles resulting from erosion on land involved in earthwork, such as the construction of public works; highways; subdivisions; recreational, commercial, or industrial developments; or the cultivation and management of agricultural lands.

**D. ZONE OF MIXING LIMITATIONS**

The ZOM shall be established for the assimilation of secondary treated wastewater at a design flow of 2.0 MGD. The ZOM shall consist of a rectangular prism having a length of 1,960 feet and a width of 1,000 feet. The diffuser is centered on the longitudinal axis of the ZOM.

## **E. RECEIVING WATER MONITORING PROGRAM REQUIREMENTS**

Receiving water monitoring is performed by the City and County of Honolulu for Kailua Regional Wastewater Treatment Plant. The Permittee shall obtain receiving water monitoring data for the shoreline and offshore stations.

### **1. Annual Receiving Water Monitoring Report**

Concurrent with the Kailua Regional Wastewater Treatment Plant, the Permittee shall submit an annual receiving water monitoring report by April 30<sup>th</sup> each year. The annual receiving water monitoring reports shall summarize and discuss monitoring results for the previous year. Reports shall include, at minimum:

- a. A description of climatic and receiving water characteristics at the time of sampling (weather observations, floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling, tide height, etc.);
- b. A description of sampling stations, including differences unique to each station (e.g., station location, sediment grain size, distribution of bottom sediment, rocks, and shell litter, calcareous worm tubes, etc.);
- c. A record shall be kept of the individuals performing sampling or measurements. A description of the sample collection and preservation procedures used in the survey shall be included in the report;
- d. A description of methods used for laboratory analyses. Variations in procedure may be acceptable, but any such changes shall be reported to the EPA and DOH, before implementation. All such variations must be reported with the analytical results; and
- e. An in-depth discussion of survey results. All tabulations and computations shall be explained.

If the City and County of Honolulu is performing the receiving water sampling for the Permittee, the Permittee may submit a letter stating such in lieu of submitting the report.

### **2. Ocean Outfall Monitoring**

At least once during the term of this permit the Permittee shall inspect the ocean outfall concurrent with the Kailua Regional Wastewater Treatment Plant and submit the investigation findings to the DOH. The outfall inspection shall include, but not be limited to, an investigation of the structural integrity,

operational status, and maintenance needs. The Permittee shall include findings of the inspection to the DOH in the annual wastewater pollution prevention report in Part F of this permit for the year the outfall inspection is conducted. If the City and County of Honolulu is performing the ocean outfall monitoring for the Permittee, the Permittee may state such in the annual wastewater pollution prevention report in lieu of submitting the inspection findings.

**F. WASTEWATER POLLUTION PREVENTION PROGRAM**

**1. Annual Report**

The Permittee shall submit an annual report summarizing critical parameters which impact the operations of the facility to the DOH by June 30<sup>th</sup> of each year, unless otherwise instructed by the DOH. The report shall include, at a minimum, an evaluation of critical parameters, including the following:

- a. Flow;
- b. BOD<sub>5</sub> loading;
- c. TSS loading;
- d. Toxic pollutants or impacts of septic wastes;
- e. Growth potential of the service area;
- f. Impact of new regulations;
- g. Bypasses and overflows;
- h. Effectiveness and condition of the collection system; and,
- i. Treatment capacity based on additional information.

**2. Flow Rate Notification**

The Permittee shall notify the DOH and the Regional Administrator in writing not later than 90 days after the 30-day average dry weather discharge flow rate equals or exceeds 75% of the actual treatment capacity of the facility as reported above in Part F.1.i. The report shall include:

- a. Date on which the 30-day average discharge flow rate equals or exceeds 75% of the actual treatment capacity of the facility.
- b. Estimate of when the 30-day average discharge flow rate will equal or exceed the actual treatment capacity of the facility.
- c. Schedule of compliance to provide additional treatment capacity before the 30-day average discharge flow rate equals the actual treatment capacity of the facility.

**G. INDUSTRIAL PRETREATMENT REQUIREMENTS**

**1. Prohibitions**

It shall be a violation of this permit for the following to be introduced to the facility or sewer system:

- a. Hazardous waste;
- b. Pollutants which create a fire or explosion hazard;
- c. Pollutants which will cause corrosive or structural damage. In no case shall discharges to the treatment plant or sewer system have a pH less than 5.0 standard units;
- d. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the sewer system or treatment plant;
- e. Any pollutant, including heat and oxygen demanding pollutants (BOD, etc.) at a flow rate and/or pollutant concentration which will inhibit or disrupt the treatment plant, its processes or operations, or its sludge processes, use or disposal; and
- f. Free oil, or unemulsified oily water with an oil concentration above 50 mg/L. "Oil" includes any petroleum product or organic solvent. It does not include animal or vegetable products.

**2. Authorized Non-Domestic Sewer Dischargers**

- a. Facilities authorized to discharge non-domestic wastes to the facility's collection system are those identified in the Permittee's application dated March 2, 1994, and in "A Survey of Industrial Wastewater Discharges Kaneohe Marine Corps Air Station," dated April 1989, and any new facilities which are substantially similar to those identified in the documents above. The Permittee shall maintain an up-to-date list of authorized discharge facilities, including a brief description of the type of discharge.
- b. The Permittee shall obtain approval from the DOH to discharge from any non-domestic facility or process not meeting these criteria, or from any facility or process subject to an EPA effluent guideline. At least six (6) months before accepting discharges from any facility not previously authorized under the previous paragraph, the Permittee shall apply to the DOH for permission for that acceptance.

**3. Oil Water Separators**

- a. All facilities with the potential to discharge oil to the sewer system, such as vehicle maintenance facilities and wash racks, shall be equipped with an oil water separator designed to handle peak hydraulic loads, and to prevent the discharge of free oil or unemulsified oil at a concentration greater than 50 mg/L (maximum).
- b. Oil water separators shall be operated and maintained in accordance with Kaneohe Marine Corps Air Station, Order 11345.1, dated November 30, 1988, or subsequent amendments.
- c. At a minimum, the Permittee shall provide the following of all non-domestic facilities that operate oil water separators:
  - (1) All oil water separators serving active facilities shall be visually inspected by removal of all covers not less than once per week to insure proper operation and removal of accumulated oil;
  - (2) A signed written log shall be kept documenting each inspection; and
  - (3) If an oil water separator is not operating correctly, or is full of oil, or is discharging oil to the sewer system, all operations contributing wastewater to the separator shall cease until the separator has received proper maintenance.
- d. No oil water separator shall discharge directly to State waters or to any ditch or storm sewer which is tributary to State water.

**4. Annual Reports**

The Permittee shall submit an annual report of industrial pretreatment activities to the DOH by August 30 of each year covering the previous calendar year. The annual report shall contain the following information:

- a. A list of all new non-domestic facilities and processes discharging to the sewer system;
- b. A list of all active oil water separators, the location and discharge point of each separator, the names of the individuals responsible for routine inspection of each separator, and the number of inspections performed in the previous year. The report shall also include a summary of each instance where inspection or testing revealed that the separator was not operated or maintained correctly.

## **H. SLUDGE/BIOSOLIDS REQUIREMENTS**

### **1. Sludge Use/Disposal Requirements**

#### **a. General Conditions and Requirements**

##### **(1) Acceptable Sludge Use/Disposal Practices**

- (a) The Permittee shall dispose of all sludge generated at the facility at a municipal solid waste landfill, at a sludge surface disposal site, by land application, or by transferring the sludge to another party for further treatment, use, or disposal in accordance with all applicable portions of 40 CFR Parts 257, 258, 503 and HAR, Chapters 11-58.1 and 11-62.
- (b) Storage of sludge for over two years from the time it is generated shall be considered to be surface disposal. The storage site shall meet all the requirements of a surface disposal site under 40 CFR 503 Subpart C and HAR, Chapters 11-58.1 and 11-62. If the Permittee desires to store sludge for longer periods of time prior to final disposal, the Permittee shall submit a written request to the EPA Regional Sludge Coordinator and DOH containing the information required under 40 CFR Section 503.20(b).
- (c) The Permittee shall dispose of sludge containing more than 50 mg/kg of PCBs in accordance with 40 CFR 761.
- (d) If the Permittee desires to dispose of sludge using a method not listed above, the Permittee shall submit a request for permit modification to EPA Regional Sludge Coordinator and DOH 180 calendar days prior to the commencement of the alternate disposal practice.

##### **(2) Duty to Mitigate**

- (a) The Permittee shall be responsible for ensuring the following:
  - i. All sludge produced at its facility is used/disposed of in accordance with 40 CFR Parts 257, 258, 503, and HAR, Chapters 11-58.1 and 11-62, whether the Permittee uses/disposes of the sludge itself or transfers it to another party for further treatment, use, or disposal.

- ii. Subsequent preparers, applicers, or disposers of the sludge are informed of the requirements under 40 CFR Parts 257, 258, 503, and HAR, Chapters 11-58.1 and 11-62.
  - iii. Sludge is not allowed to enter State waters, or to contaminate an underground drinking water source.
  - iv. Sludge treatment, storage, use, and disposal do not create a public nuisance.
  - v. Haulers who ship non-Class A sludge off-site for additional treatment, use, or disposal take all necessary measures to keep sludge contained.
- (b) The Permittee shall take all reasonable steps to prevent or minimize any sludge use or disposal which has a likelihood of adversely affecting human health or the environment.

**(3) Other Conditions**

- (a) The DOH may promptly modify or revoke and reissue this permit to incorporate any applicable standard for sewage sludge use or disposal promulgated under the Act Section 405(d), or adopted under HRS, Chapter 342D, or HAR, Chapter 11-62, if the standard is more stringent than the standard in this permit or covers a pollutant or practice not covered in this permit.
- (b) The sludge requirements in this part are supplemental to the other conditions of this permit. In the event of a conflict, those requirements more protective of the environment shall apply.
- (c) The requirements in 40 CFR 503 are enforceable by the EPA independently of being included in this permit.

**b. Sludge Limitations and Monitoring Requirements**

- (1) Sludge shall be limited and monitored by the Permittee as specified below:
  - (a) Sludge Disposed of in Municipal Solid Waste Landfills

**PART H**  
**PERMIT NO. HI 0110078**  
**Page 23**

Monitoring Parameter/Test Procedures	Limitation	Monitoring Frequency
Paint Filter Test (SW-486, EPA Method 9095)	No "Free Liquids" <sup>1</sup>	1/Year
Toxicity Characteristic Leaching Procedure (TCLP) Test <sup>2</sup>	<sup>2</sup>	1/Year
Priority Pollutants <sup>3</sup>	N/A	1/Year <sup>4</sup>

N/A = Not Applicable

<sup>1</sup> "Free Liquids" as defined in EPA Method 9095.

<sup>2</sup> The parameters to be tested by the TCLP test and their limitations are specified in 40 CFR 261.24, Table 1 - Maximum Concentration of Contaminants for the Toxicity Characteristic.

<sup>3</sup> Priority pollutants are listed under the Act Section 307(a).

<sup>4</sup> The Permittee shall test for priority pollutants more frequently if required under the pretreatment program.

- (b) Sludge Disposed of in Surface Disposal Sites (Sludge-only Landfill or Disposal on Land Not for the Purpose of Improving Plant Growth)

Parameter	Limitation (Mg/kg)							Monitoring Frequency
	0<25 m	25<50 m	50<75 m	75<100 m	100<125 m	125<150 m	>150 m	
Arsenic <sup>1</sup>	30	34	39	46	53	62	73	<sup>2</sup>
Chromium <sup>1</sup>	200	220	260	300	360	450	600	<sup>2</sup>
Nickel <sup>1</sup>	210	240	270	320	390	420	420	<sup>2</sup>
TCLP Test <sup>3</sup>	<sup>3</sup>							1/Year
Priority Pollutants <sup>4</sup>	N/A							1/Year <sup>5</sup>

m = Meter

N/A = Not Applicable

<sup>1</sup> The Permittee shall monitor for this parameter only if sludge is disposed of in a unit with no liner and leachate system. Limitations are based on the distance (meters) from the active sludge unit boundary to the nearest property line.

<sup>2</sup> Monitoring frequency shall be determined by the following table:

Annual Production, Dry Weight (Metric Tons/Year)	Monitoring Frequency
0 - 290	1/Year (November)
290 – 1,500	1/Quarter (Feb/May/Aug/Dec)
1,500 – 15,000	6/Year (Feb/Apr/Jun/Aug/Oct/Dec)

**FINAL PERMIT**  
**December 9, 2019**

**PART H**  
**PERMIT NO. HI 0110078**  
**Page 24**

<b>Annual Production, Dry Weight (Metric Tons/Year)</b>	<b>Monitoring Frequency</b>
>15,000	1/Month

- (c) The Permittee shall obtain and comply with the Wastewater Management Individual Permit, issued by the DOH, Wastewater Branch.
- (2) The Permittee shall develop a representative sampling plan for monitoring toxics reduction, including the number and location of sampling points.
  - (a) If sludge generated at the facility is land applied or disposed at a surface disposal site, the sampling plan shall also include pathogens and vector attraction reduction monitoring.
  - (b) If pathogen reduction is determined by time and temperature, the plan shall be designed to determine temperatures throughout the batch being treated.
  - (c) If windrow composting is used, temperature shall be measured at least once for each 150 feet of windrow and include measurements at depths of 12 to 24 inches below the surface.
- c. Requirements for Sludge Disposed of in Municipal Solid Waste Landfill
  - (1) The Permittee shall dispose sludge in municipal solid waste landfills that meet the requirements of 40 CFR 258; and HAR, Chapter 11-58.1.
  - (2) The Permittee shall have a qualified groundwater scientist develop a groundwater monitoring program for the surface disposal site or certify that the placement of sludge on the site will not cause aquifer contamination.
- d. Requirements for Sludge Disposed of in Surface Disposal Sites (Sludge-only Landfill or Disposal on Land Not for the Purpose of Improving Plant Growth)
  - (1) Sludge that is disposed of in a sludge-only landfill shall meet the general requirements, pollutant limits (for surface disposal sites without liners and leachate systems), management practices, and operational standards in 40 CFR 503 Subpart C and additional pollutant limits requested by the DOH.

- (2) The Permittee shall have a qualified groundwater scientist develop a groundwater monitoring program for the surface disposal site or certify that the placement of sludge on the site will not cause aquifer contamination.
- e. Requirements for Sludge that is Land-Applied (Added to Soil for the Purpose of Improving Plant Growth)

The Permittee shall obtain and comply with the Wastewater Management Individual Permit, issued by the DOH, Wastewater Branch.

f. Notification Requirements

- (1) If sludge other than exceptional quality sludge is shipped to another state or to Indian lands, the Permittee shall notify the permitting authorities in the receiving state or Indian land (the EPA Regional Office for that area and the State or Indian authorities) 60 calendar days prior to shipment.
- (2) The Permittee shall notify the EPA Regional Sludge Coordinator and the DOH of any non-compliance that may seriously endanger public health or the environment within 24 hours after becoming aware of the non-compliance. A written non-compliance report shall be submitted, postmarked, or faxed within five working days after the Permittee becomes aware of the non-compliance.
- (3) The Permittee shall report all other instances of non-compliance not reported under Part H.1.f.(2) at the time DMRs are submitted as required by Part I.1 of this permit.

g. Annual Report

By February 19th of each year, the Permittee shall submit an annual report on sludge management activities during the previous calendar year to the EPA Regional Sludge Coordinator and the DOH. The report shall provide the following information:

- (1) Total amount of sludge generated that year and a breakdown of the usage/disposal methods employed (in dry weight, metric tons).
- (2) Results of all monitoring required by Part H.1.b.

- (3) If sludge was disposed in a municipal solid waste landfill, then the Permittee shall include the following certification statement:

**"I certify under the penalty of law, that the paint filter test and toxicity characteristic leaching procedure test requirements have been met, and that vector attraction reduction requirements have been met by the municipal solid waste landfill. This determination has been made under my direction and supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information used to determine that the necessary requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."**

- (4) If sludge was disposed in a surface disposal site, the following information shall be included:
- (a) Requirements specified in 40 CFR 503.27;
  - (b) Name and mailing address of surface disposal operator if different from Permittee;
  - (c) Location (street address and latitude and longitude) of surface disposal site; and
  - (d) Results of groundwater monitoring, or a copy of a certification by a groundwater scientist (including the scientist's name, title, and phone number) that the placement of sludge at the surface disposal site will not cause aquifer contamination.
- (5) If sludge was land-applied, the following information shall be included:
- (a) Requirements specified in 40 CFR 503.17(a) for all facilities preparing sludge for land application or reference to that facility's report, if submitted to EPA separately;
  - (b) Names and addresses of all facilities receiving the non-exceptional quality sludge, including land appliers and those facilities providing further treatment/blending prior to land application;
  - (c) Location of land application sites of non-exceptional quality sludge (street address, latitude and longitude) and sizes of parcels;

- (d) Crops grown, agronomic rate for the crops grown, and certification by the land appliers of non-exceptional quality sludge that the sludge was applied at a rate not exceeding the agronomic rate determined for each crop; and
  - (e) Copies of other certification statements by land appliers of non-exceptional quality sludge.
- (6) If sludge was stored, the following information shall also be included:
- (a) Age of stored sludge.
  - (b) Name and mailing address of operator of storage site if different from Permittee.
  - (c) Location of stored sludge (street address, latitude and longitude).
- (7) If sludge was disposed using other methods, descriptions of the methods employed and the locations (street address, latitude and longitude) of the usage/disposal sites shall be included.
- (8) Annual reports shall be submitted to:
- (a) DOH, CWB through the CWB Compliance Submittal Form for Individual NPDES Permits and Notice of General Permit Coverages (NGPCs) on the e-Permitting Portal, unless otherwise specified by DOH.
  - (b) EPA using EPA's NPDES Electronic Reporting Tool ("NeT") for biosolids, which went into effect December 21, 2016, unless otherwise specified by the DOH.
  - (c) DOH, Wastewater Branch at the following address:  
  
Wastewater Sludge Program Manager  
Environmental Management Division, Wastewater Branch  
Hawaii Department of Health  
2827 Waimano Home Road, Room 207  
Honolulu, HI 96782

## I. REPORTING REQUIREMENTS

### 1. Transmittal and Monitoring Results Reporting Requirements

#### a. Certification of Transmittals

Submit all information in accordance with HAR, 11-55-07(b), with the following certification statement by an appropriate signatory:

**“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”**

#### b. Include **Permit No. HI 0110078** on each transmittal.

Failure to provide the assigned permit number for this facility on future correspondence or transmittals may be a basis for delay of the processing of the document(s).

#### c. Reporting of Discharge and Monitoring Results

- (1) The Permittee shall report monitoring results required under this permit on DMR forms submitted electronically using NetDMR, or as otherwise instructed by DOH. NetDMR is accessed from:  
<http://www.epa.gov/netdmr>.
- (2) DMRs shall be submitted electronically no later than the 28th day of the month following the completed reporting period.
- (3) For the purposes of reporting, the Permittee shall use the reporting threshold equivalent to the laboratory's method detection limit (MDL) and must utilize a standard calibration where the lowest standard point is equal to or less than the concentration of the minimum level (ML).

- (a) The Permittee shall report sample results and calculations at or above the laboratory's ML on DMRs as the measured concentration or calculation.
- (b) The Permittee shall report sample results and calculations below the laboratory's MDL as NODI(B) on the DMR. NODI(B) means that the concentration of the pollutant in a sample is not detected.
- (c) The Permittee shall report sample results and calculations between the ML and MDL as NODI(Q). NODI(Q) means that the concentration of the pollutant in a sample is detected but not quantified.
- (d) For purposes of calculating averages, zero shall be assigned for values less than the MDL and the numeric value of the MDL shall be assigned for values between the MDL and the ML. The resulting average value must be compared to the effluent limitation or the ML, whichever is greater, in assessing compliance.
- (e) For purposes of calculated geometric means,  $0.25 \times \text{MDL}$  shall be assigned for values less than the MDL and the numeric value of the MDL shall be assigned for values between the MDL and the ML. The resulting geometric mean must be compared to the effluent limitation or the ML, whichever is greater, in assessing compliance.
- (f) When NODI(Q) or NODI(B) is reported for a parameter, the laboratory's numeric ML and MDL for that parameter shall also be noted on the DMR or on an attachment.

- (4) Should there be no discharges during the monitoring period, the DMR form shall so state.

d. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant at locations designated herein more frequently than required by this permit, using approved analytical methods as specified in 40 CFR Part 136, the results of such monitoring shall be included in the calculation and reporting of the values required in the DMR form. The increased frequency shall also be indicated.

**2. Reporting of Non-compliance, Unanticipated Bypass, or Upset**

The following requirements replace the 24-hour notice requirements for bypasses (Standard NPDES Conditions Section 17(d)(2)(B) and 40 CFR 122.41(1)(6)(ii)(A)) and upsets (Standard NPDES Conditions Section 18(c)(3) and 40 CFR 122.41(1)(6)(ii)(B)).

**a. Immediate Reporting**

- (1) In the event of a bypass, upset, or sewage spill resulting in or contributing to a discharge to State waters, the Permittee shall orally notify the DOH at the time the Permittee's authorized personnel become aware of the circumstances, but no later than 24 hours after the event.
- (2) In the event of a bypass, upset, or sewage spill resulting in or contributing to a discharge of 1,000 gallons or more to State waters, the Permittee shall orally notify the DOH and the AP news wire services at the time the Permittee's authorized personnel become aware of the circumstances, but no later than 24 hours after the event.
- (3) In the event of an exceedance of a daily maximum discharge limitation, if any exist, the Permittee shall orally notify the DOH at the time the Permittee's authorized personnel becomes aware of the circumstances, but no later than 24 hours after the event.

**b. Contact for Oral Reports**

- (1) The Permittee shall make oral reports during regular office hours (7:45 a.m. to 4:30 p.m.) to the DOH, Clean Water Branch (CWB) at (808) 586-4309.
- (2) The Permittee shall make oral reports outside of regular office hours to the State Hospital Operator at 247-2191.

**c. Written Submission**

- (1) For those non-compliances requiring immediate reporting, the Permittee shall submit a written non-compliance report. The Permittee shall submit the report to the DOH, CWB, in accordance with Part I.2.c.(2) within five working days after the Permittee's authorized personnel becomes aware of the non-compliance.

- (2) The report shall contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times; if the non-compliance has not been corrected, the anticipated time it is expected to continue; public notice efforts, if any; clean-up efforts, if any; and steps taken or planned to reduce, eliminate and prevent reoccurrence of the non-compliance.
- (3) The DOH may waive the written report or the five working day deadline on a case-by-case basis for spills, bypasses, upsets, and violations of daily maximum discharge limitations if the oral report has been received within 24 hours of the non-compliance or when the Permittee's authorized personnel becomes aware of the non-compliance.

d. Other Non-Compliance

The Permittee shall report all other instances of non-compliance not reported under Part I.2.a at the time DMRs are submitted as required by Part I.1.c of this permit. The non-compliance reports shall contain the information requested in Part I.2.c.(2) of this permit.

3. Schedule of Submission

The Permittee shall submit reports to the DOH as specified below:

Report	Reporting Period	Report Due Date
Discharge Monitoring Report	1/Month	28 <sup>th</sup> day of the month following completed reporting period
Sludge/Biosolids Annual Report	1/Year	February 19 <sup>th</sup> of each year
Industrial Pretreatment Annual Report	1/Year	August 30 <sup>th</sup> of each year
Annual Receiving Water Monitoring Report	1/Year	April 30 <sup>th</sup> of each year
Wastewater Pollution Prevention Program Annual Report	1/Year	June 30 <sup>th</sup> of each year
Initial Investigation TRE Workplan	1/Permit Term	90 days after effective date of this permit

**4. Submittal of Reports**

All reports, notifications, and updates to information on file shall be submitted through the CWB Compliance Submittal Form for Individual NPDES Permits and NGPCs unless otherwise instructed by the DOH. This form is accessible through the e-Permitting Portal website at: <https://eha-cloud.doh.hawaii.gov/epermit/>.

The Permittee shall comply with the reporting requirements of 40 CFR 122.41(l)(1) through 122.41(l)(5), and 122.41(l)(8) as incorporated by Standard NPDES Permit Conditions, Section 16. Parts I.1 and I.2 of this permit supersede the requirements of 40 CFR 122.41(l)(6) and 122.41(l)(7).

**J. SPECIAL CONDITIONS**

1. Wastewater treatment facilities subject to this permit shall be supervised and operated by persons possessing certificates of appropriate grade, as determined by the DOH. If such personnel are not available to staff the wastewater treatment facilities, a program to promote such certification shall be developed and enacted by the Permittee. Activities of this program shall be reported in the Annual Report in Part F of this permit.
2. The Permittee shall maintain in good working order a sufficient alternate power source for operating the wastewater treatment and disposal facilities. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, and other physical phenomena. The alternate power source shall be designed to permit inspection and maintenance and shall provide for periodic testing. If such alternate power source is not in existence, the Permittee shall halt, reduce, or otherwise control all discharges upon the reduction, loss, or failure of the primary source of power.
3. This permit may be reopened and modified, in accordance with NPDES regulations at 40 CFR 122 and 124, as necessary, to include additional conditions or limitations based on newly available information.
4. Treatment Plant Maintenance and Process Solids Monitoring  
The Permittee shall utilize a Process Control Program (a.k.a. a computerized maintenance and operation program) which is updated on a regular basis, i.e., no less than quarterly. The computerized program shall be identical or substantially similar to the program currently in use. The computerized program currently in use was initially approved by the Marine Corps in June 1989.

Treatment plant solids streams shall be subject to the minimum schedule of monthly and bimonthly grab sample monitoring as a part of routine operation and maintenance. The monitoring results shall be retained by the Permittee and submitted to the DOH upon request.

5. Response to Sewage Spills
  - a. Discharges to Surface Waters or Only to the Ground Outside the Facility's Fence
    - (1) Disinfection/Clean Up
      - (a) Sewage that is discharged shall be disinfected prior to being discharged if sufficient disinfection contact time is available. Best judgment should be used in determining the amount of chlorine added to the discharge if chlorine is used as a disinfectant. The

Permittee shall comply with the total residual chlorine discharge limitation as specified in HAR, Chapter 11-55.

- (b) The Permittee shall clear and disinfect contaminated grounds of all debris and standing wastewater.

(2) Public Warnings

- (a) The Permittee shall immediately post "Warning Signs" in the areas or near waters likely to be affected by the discharge and where public access is possible.
- (b) The Permittee shall email a map showing the affected waterbodies and locations of the warning signs to [cleanwaterbranch@doh.hawaii.gov](mailto:cleanwaterbranch@doh.hawaii.gov). The DOH may require the Permittee to post additional warning signs.
- (c) The Permittee shall remove the warning signs only with the authorization from the DOH.

(3) Public Access

The Permittee shall limit public access by barricades or other means when or where standing wastewater cannot be removed.

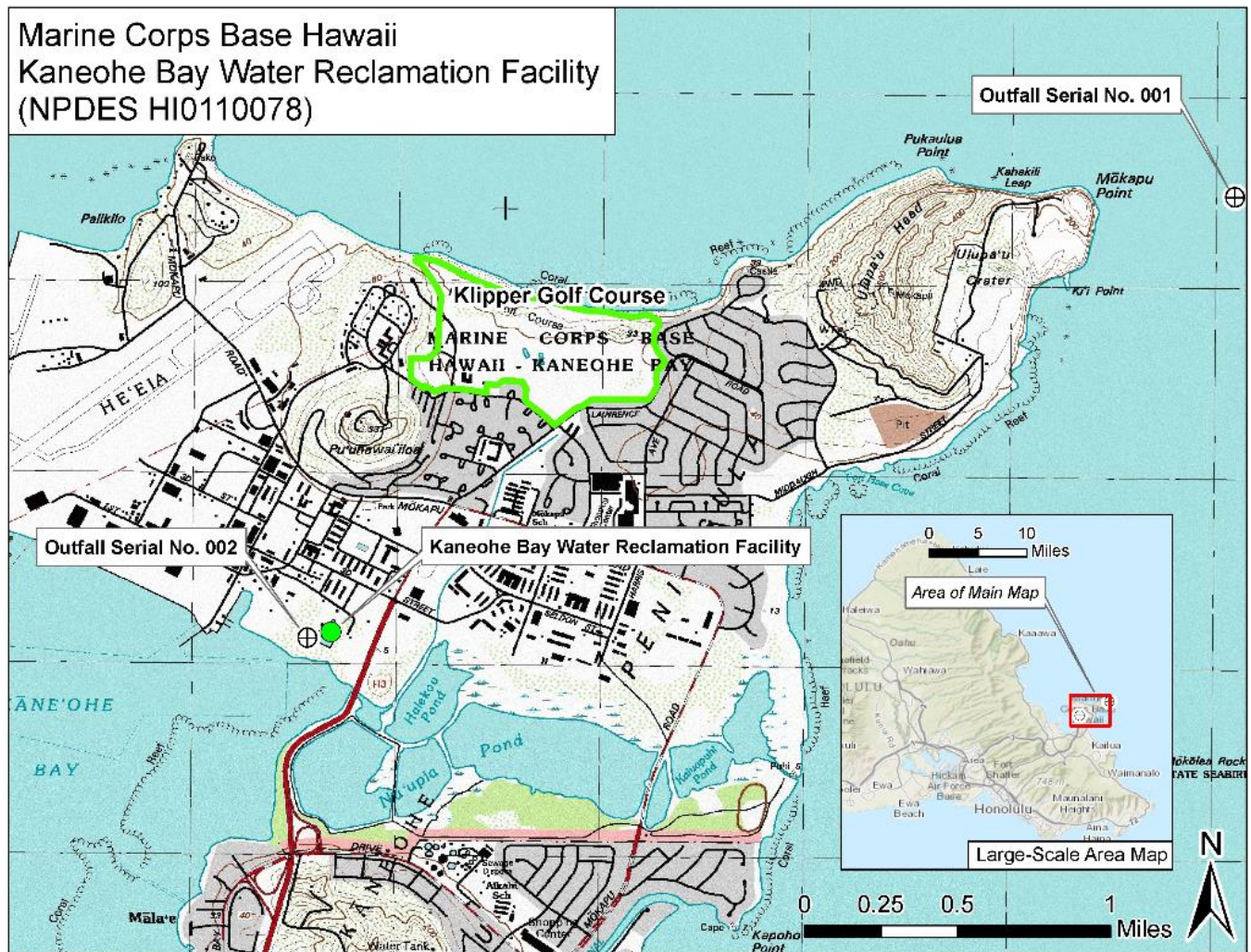
(4) Special Sampling of Surface Waters

- (a) The Permittee shall conduct enterococci sampling in discharges greater than 100 gallons, or when public health may be threatened, in the area of the receiving water affected by the discharge, as soon as possible. Samples shall be taken, and the results shall be submitted immediately to the DOH. Monitoring shall continue until notification to stop is received from the DOH.
- (b) The DOH shall be informed of the location of sampling stations and may modify the number of stations and site selection.
- (c) The DOH may require additional enterococci monitoring by the Permittee to supplement their existing monitoring program, as necessary or appropriate.

0110078.FNL.19

**K. LOCATION AND ZOM AND RECEIVING WATER STATION MAPS**

(See Figures 1 and 2)



### Figure 1 – Location Map.

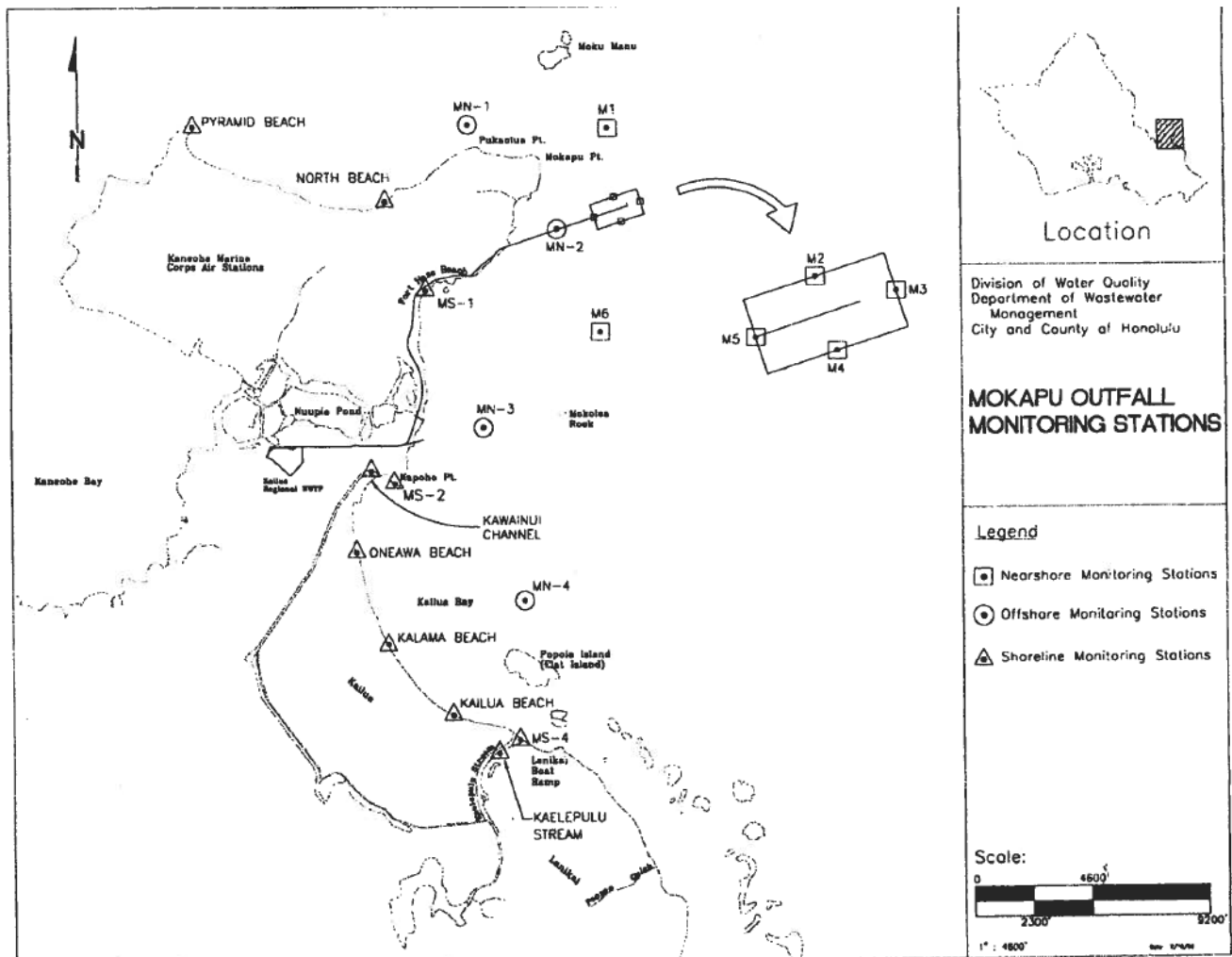


Figure 2 – Zone of Mixing (ZOM) and Receiving Water Monitoring Locations.

**APPENDIX 1 – MONITORING PARAMETERS AND ANALYTICAL METHODS**

<b>Discharge Parameter</b>	<b>Sample Type</b>	<b>Analytical Method</b>	<b>Chemical Abstract No.</b>
<b><i>Metals</i></b>			
Antimony	24-Hr Composite or Grab	As specified in 40 CFR 136	7440-36-0
Arsenic	24-Hr Composite or Grab	As specified in 40 CFR 136	7440-38-2
Beryllium	24-Hr Composite or Grab	As specified in 40 CFR 136	7440-41-7
Cadmium	24-Hr Composite or Grab	As specified in 40 CFR 136	7440-43-9
Chromium (VI)	24-Hr Composite or Grab	As specified in 40 CFR 136	18540-29-9
Copper	24-Hr Composite or Grab	As specified in 40 CFR 136	7440-50-8
Lead	24-Hr Composite or Grab	As specified in 40 CFR 136	7439-92-1
Mercury	24-Hr Composite or Grab	As specified in 40 CFR 136	7439-97-6
Nickel	24-Hr Composite or Grab	As specified in 40 CFR 136	7440-02-0
Selenium	24-Hr Composite or Grab	As specified in 40 CFR 136	7782-49-2
Silver	24-Hr Composite or Grab	As specified in 40 CFR 136	7440-22-4
Thallium	24-Hr Composite or Grab	As specified in 40 CFR 136	7440-28-0
Zinc	24-Hr Composite or Grab	As specified in 40 CFR 136	7440-66-6
<b><i>Pesticides</i></b>			
Aldrin	24-Hr Composite or Grab	As specified in 40 CFR 136	309-00-2
Chlordane	24-Hr Composite or Grab	As specified in 40 CFR 136	12789-03-6
Dieldrin	24-Hr Composite or Grab	As specified in 40 CFR 136	60-57-1
4,4'-DDT	24-Hr Composite or Grab	As specified in 40 CFR 136	50-29-3
4,4'-DDE	24-Hr Composite or Grab	As specified in 40 CFR 136	72-55-9
4,4'-DDD	24-Hr Composite or Grab	As specified in 40 CFR 136	72-54-8
Alpha-Endosulfan	24-Hr Composite or Grab	As specified in 40 CFR 136	959-98-8
Beta Endosulfan	24-Hr Composite or Grab	As specified in 40 CFR 136	33213-65-9
Endosulfan Sulfate	24-Hr Composite or Grab	As specified in 40 CFR 136	1031-07-8
Endrin	24-Hr Composite or Grab	As specified in 40 CFR 136	72-20-8
Endrin Aldehyde	24-Hr Composite or Grab	As specified in 40 CFR 136	7421-93-4
Heptachlor	24-Hr Composite or Grab	As specified in 40 CFR 136	76-44-8
Heptachlor Epoxide	24-Hr Composite or Grab	As specified in 40 CFR 136	1024-57-3
Alpha BHC	24-Hr Composite or Grab	As specified in 40 CFR 136	319-84-6
Beta BHC	24-Hr Composite or Grab	As specified in 40 CFR 136	319-85-7
Delta BHC	24-Hr Composite or Grab	As specified in 40 CFR 136	319-86-8
Gamma BHC (Lindane)	24-Hr Composite or Grab	As specified in 40 CFR 136	58-89-9
Toxaphene	24-Hr Composite or Grab	As specified in 40 CFR 136	8001-35-2
PCB 1016	24-Hr Composite or Grab	As specified in 40 CFR 136	12674-11-2
PCB 1221	24-Hr Composite or Grab	As specified in 40 CFR 136	11104-28-2
PCB 1232	24-Hr Composite or Grab	As specified in 40 CFR 136	11141-16-5
PCB 1242	24-Hr Composite or Grab	As specified in 40 CFR 136	53469-21-9
PCB 1248	24-Hr Composite or Grab	As specified in 40 CFR 136	12672-29-6
PCB 1254	24-Hr Composite or Grab	As specified in 40 CFR 136	11097-69-1
PCB 1260	24-Hr Composite or Grab	As specified in 40 CFR 136	11096-82-5
<b><i>Base/Neutral Extractables</i></b>			
Acenaphthene	24-Hr Composite or Grab	As specified in 40 CFR 136	83-32-9
Acenaphthylene	24-Hr Composite or Grab	As specified in 40 CFR 136	208-96-8
Anthracene	24-Hr Composite or Grab	As specified in 40 CFR 136	120-12-7
Benzidine	24-Hr Composite or Grab	As specified in 40 CFR 136	92-87-5
Benzo(a)Anthracene	24-Hr Composite or Grab	As specified in 40 CFR 136	56-55-3
Benzo(a)Pyrene	24-Hr Composite or Grab	As specified in 40 CFR 136	50-32-8
Benzo(b)Fluoranthene	24-Hr Composite or Grab	As specified in 40 CFR 136	205-99-2
Benzo(g,h,i)Perylene	24-Hr Composite or Grab	As specified in 40 CFR 136	191-24-2

**APPENDIX 1**  
**PERMIT NO. HI 0110078**  
**Page 2 of 3**

<b>Discharge Parameter</b>	<b>Sample Type</b>	<b>Analytical Method</b>	<b>Chemical Abstract No.</b>
Benzo(k)Fluoranthene	24-Hr Composite or Grab	As specified in 40 CFR 136	207-08-9
Bis(2-Chloroethoxy)Methane	24-Hr Composite or Grab	As specified in 40 CFR 136	111-91-1
Bis(2-Chloroethyl)Ether	24-Hr Composite or Grab	As specified in 40 CFR 136	111-44-4
Bis(2-Chloroisopropyl)Ether	24-Hr Composite or Grab	As specified in 40 CFR 136	39638-32-9
Bis(2-Ethylhexyl)Phthalate	24-Hr Composite or Grab	As specified in 40 CFR 136	117-81-7
4-Bromophenyl Phenyl Ether	24-Hr Composite or Grab	As specified in 40 CFR 136	101-55-3
Butyl Benzyl Phthalate	24-Hr Composite or Grab	As specified in 40 CFR 136	85-68-7
2-Chloronaphthalene	24-Hr Composite or Grab	As specified in 40 CFR 136	91-58-7
Chrysene	24-Hr Composite or Grab	As specified in 40 CFR 136	218-01-9
Dibenzo(a,h)Anthracene	24-Hr Composite or Grab	As specified in 40 CFR 136	53-70-3
4-Chlorophenyl Phenyl Ether	24-Hr Composite or Grab	As specified in 40 CFR 136	7005-72-3
1,2-Dichlorobenzene	24-Hr Composite or Grab	As specified in 40 CFR 136	95-50-1
1,3-Dichlorobenzene	24-Hr Composite or Grab	As specified in 40 CFR 136	541-73-1
1,4-Dichlorobenzene	24-Hr Composite or Grab	As specified in 40 CFR 136	106-46-7
3,3-Dichlorobenzidine	24-Hr Composite or Grab	As specified in 40 CFR 136	91-94-1
Diethyl Phthalate	24-Hr Composite or Grab	As specified in 40 CFR 136	84-66-2
Dimethyl Phthalate	24-Hr Composite or Grab	As specified in 40 CFR 136	131-11-3
Di-N-Butyl Phthalate	24-Hr Composite or Grab	As specified in 40 CFR 136	84-74-2
2,4-Dinitrotoluene	24-Hr Composite or Grab	As specified in 40 CFR 136	121-14-2
2,6-Dinitrotoluene	24-Hr Composite or Grab	As specified in 40 CFR 136	606-20-2
1,2-Diphenylhydrazine (as Azobenzene)	24-Hr Composite or Grab	As specified in 40 CFR 136	122-66-7
Di-N-Octyl Phthalate	24-Hr Composite or Grab	As specified in 40 CFR 136	117-84-0
Fluoranthene	24-Hr Composite or Grab	As specified in 40 CFR 136	206-44-0
Fluorene	24-Hr Composite or Grab	As specified in 40 CFR 136	86-73-7
Hexachlorobenzene	24-Hr Composite or Grab	As specified in 40 CFR 136	118-74-1
Hexachlorobutadiene	24-Hr Composite or Grab	As specified in 40 CFR 136	87-68-3
Hexachlorocyclopentadiene	24-Hr Composite or Grab	As specified in 40 CFR 136	77-47-4
Hexachloroethane	24-Hr Composite or Grab	As specified in 40 CFR 136	67-72-1
Indeno(1,2,3-cd)Pyrene	24-Hr Composite or Grab	As specified in 40 CFR 136	193-39-5
Isophorone	24-Hr Composite or Grab	As specified in 40 CFR 136	78-59-1
Naphthalene	24-Hr Composite or Grab	As specified in 40 CFR 136	91-20-3
Nitrobenzene	24-Hr Composite or Grab	As specified in 40 CFR 136	98-95-3
N-Nitrosodimethylamine	24-Hr Composite or Grab	As specified in 40 CFR 136	62-75-9
N-Nitrosodi-N-Propylamine	24-Hr Composite or Grab	As specified in 40 CFR 136	621-64-7
N-Nitrosodiphenylamine	24-Hr Composite or Grab	As specified in 40 CFR 136	86-30-6
Phenanthrene	24-Hr Composite or Grab	As specified in 40 CFR 136	85-01-8
Pyrene	24-Hr Composite or Grab	As specified in 40 CFR 136	129-00-0
1,2,4-Trichlorobenzene	24-Hr Composite or Grab	As specified in 40 CFR 136	120-82-1
<b><i>Acid Extractables</i></b>			
2-Chlorophenol	24-Hr Composite or Grab	As specified in 40 CFR 136	95-57-8
2,4-Dichlorophenol	24-Hr Composite or Grab	As specified in 40 CFR 136	120-83-2
2,4-Dimethylphenol	24-Hr Composite or Grab	As specified in 40 CFR 136	105-67-9
4,6-Dintro-O-Cresol	24-Hr Composite or Grab	As specified in 40 CFR 136	534-52-1
2,4-Dinitrophenol	24-Hr Composite or Grab	As specified in 40 CFR 136	51-28-5
2-Nitrophenol	24-Hr Composite or Grab	As specified in 40 CFR 136	88-75-5
4-Nitrophenol	24-Hr Composite or Grab	As specified in 40 CFR 136	100-02-7
P-Chloro-M-Cresol	24-Hr Composite or Grab	As specified in 40 CFR 136	59-50-7
Pentachlorophenol	24-Hr Composite or Grab	As specified in 40 CFR 136	87-86-5
Phenol	24-Hr Composite or Grab	As specified in 40 CFR 136	108-95-2
2,4,6-Trichlorophenol	24-Hr Composite or Grab	As specified in 40 CFR 136	88-06-2

**FINAL PERMIT**  
**December 9, 2019**

**APPENDIX 1**  
**PERMIT NO. HI 0110078**  
**Page 3 of 3**

Discharge Parameter	Sample Type	Analytical Method	Chemical Abstract No.
<b><i>Volatile Organics</i></b>			
Acrolein	Grab	As specified in 40 CFR 136	107-02-8
Acrylonitrile	Grab	As specified in 40 CFR 136	107-13-1
Benzene	Grab	As specified in 40 CFR 136	71-43-2
Bromoform	Grab	As specified in 40 CFR 136	75-25-2
Carbon Tetrachloride	Grab	As specified in 40 CFR 136	56-23-5
Chlorobenzene	Grab	As specified in 40 CFR 136	108-90-7
Chlorodibromomethane	Grab	As specified in 40 CFR 136	124-48-1
Chloroethane	Grab	As specified in 40 CFR 136	75-00-3
2-Chloroethyl Vinyl Ether	Grab	As specified in 40 CFR 136	110-75-8
Chloroform	Grab	As specified in 40 CFR 136	67-66-3
Dichlorobromomethane	Grab	As specified in 40 CFR 136	75-27-4
1,1-Dichloroethane	Grab	As specified in 40 CFR 136	75-34-3
1,2-Dichloroethane	Grab	As specified in 40 CFR 136	107-06-2
1,1-Dichloroethylene	Grab	As specified in 40 CFR 136	75-35-4
1,2-Dichloropropane	Grab	As specified in 40 CFR 136	78-87-5
1,3-Dichloropropylene	Grab	As specified in 40 CFR 136	542-75-6
Ethylbenzene	Grab	As specified in 40 CFR 136	100-41-4
Methyl Bromide	Grab	As specified in 40 CFR 136	74-83-9
Methyl Chloride	Grab	As specified in 40 CFR 136	74-87-3
Methylene Chloride	Grab	As specified in 40 CFR 136	75-09-2
1,1,2,2-Tetrachloroethane	Grab	As specified in 40 CFR 136	79-34-5
Tetrachloroethylene	Grab	As specified in 40 CFR 136	127-18-4
Toluene	Grab	As specified in 40 CFR 136	108-88-3
1,2-Trans-Dichloroethylene	Grab	As specified in 40 CFR 136	156-60-5
1,1,1-Trichloroethane	Grab	As specified in 40 CFR 136	71-55-6
1,1,2-Trichloroethane	Grab	As specified in 40 CFR 136	79-00-5
Trichloroethylene	Grab	As specified in 40 CFR 136	79-01-6
Vinyl Chloride	Grab	As specified in 40 CFR 136	75-01-4
<b><i>Miscellaneous</i></b>			
Cyanide	24-Hr Composite or Grab	As specified in 40 CFR 136	57-12-5
Asbestos (Not required unless otherwise specified)	24-Hr Composite or Grab	As specified in 40 CFR 136	1332-21-4
2,3,7,8-Tetrachlorodibenzon-P-Dioxin (TCDD)	24-Hr Composite or Grab	As specified in 40 CFR 136	1746-01-6
<b><i>Other Pesticides</i></b>			
Demeton	24-Hr Composite or Grab	As specified in 40 CFR 136	8065-48-3
Guthion	24-Hr Composite or Grab	As specified in 40 CFR 136	86-50-0
Parathion	24-Hr Composite or Grab	As specified in 40 CFR 136	56-38-2
Malathion	24-Hr Composite or Grab	As specified in 40 CFR 136	121-75-5
Mirex	24-Hr Composite or Grab	As specified in 40 CFR 136	2385-85-5
Methoxychlor	24-Hr Composite or Grab	As specified in 40 CFR 136	72-43-5